

**Work Order ID 108734**

*October-29-13 9:54:14 AM*

**\*108734\***

Page 1

**Item ID:** D2939-2

Accept

**\*N900040100\***

Setup

Start

**\*NS1\***

**Revision ID:**

**Item Name:** 206 Saddle

Stop

**\*NS2\***

**Start Date:** 10/29/13    **Start Qty:** 4.00

**\*4\***

**Cust Item ID:**

**Required Date:** 10/29/13    **Req'd Qty:** 4.00

**\*4\***

**Customer:**

**Reference:**

**Approvals:**

**Process Plan:** M15

**Date:** 13-11-01

**Tooling:**

**Date:**

Run

Start

**\*NR1\***

**QC:**

**Date:**

**SPC (Y/N):**

**Date:**

Stop

**\*NR2\***

<b>Sequence ID/ Work Center ID</b>	<b>Operation Description</b>	<b>Set Up/ Run Hours</b>	<b>Tool ID</b>	<b>Tool #</b>	<b>Plan Code</b>	<b>Accept Qty</b>	<b>Reject Qty</b>	<b>Reject Number</b>	<b>Insp. Stamp</b>
--	----------------------------------	------------------------------	----------------	---------------	----------------------	-----------------------	-----------------------	--------------------------	------------------------

<b>Draw Nbr</b>	<b>Revision Nbr</b>	<b>Memo</b>	<b>Date:</b>	<b>Run</b>	<b>Start</b>	<b>Stop</b>	<b>Reject Number</b>	<b>Insp. Stamp</b>
D2939	Rev C							

100

**\*100\***

HAAS 1

HAAS CNC VERTICAL MACHINING #1

0.00

*OK/13-11-08*

*4 0*

HAAS CNC vertical machine #1

**Memo**  
Program part number and batch number.1-Inspect part number and batch number are programmed correctly.2-Machine Step No 1 of Folio and visually inspect as per dwg D2939 & attached Dimension Sheet 3-Machine Step No 2 of Folio and visually inspect as per

110

**\*110\***

Mill Conv

CONVENTIONAL MILLING MACHINE

0.00

*OK/13-11-08*

*4 0*

Conventional Milling Machine

**Memo**  
Machine Keyway and inspect per attached dimension sheet

120

**\*120\***

QC

QC1- Inspect dimensions to dimension sheet

0.00

*OK/13-11-08*

*4 0*

Quality Control

**Memo**  
0.00

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## **WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: Date:

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>			
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending		Bend		Grain		Ovalized		Pressure/Forced			
Centre Not Concentric to O/S		BOM/Route		Hardware		Over/Under tolerance		Temperature/Cure			
Cracks		Broken/Damaged		Inspection Incomplete		Part Incorrect		Weld			
Crushed/Crimped		Burrs		Instructions Incomplete/Unclear		Part Lost/Missing		Wrong Stock Pulled			
Cuffs		Contamination		Maintenance		Part Moved					
Heat Treat		Countersink		Mislabeled		Positioned Wrong					
Inspection Strip in Tube		Cut Too Short		Misread		Power Loss/Surge					
Ripples in Bend		Drill Holes		Offset							
Torque Waves in Extrusion		Drawing		Out of Calibration							
Turning Sequence		Finish		Out of Sequence							
Wave/Twist in Tube		Folio		Outside Dimensions							

**Work Order ID 108734**

October-29-13 9:54:14 AM

**\*108734\***

Page 2

Item ID: D2939-2

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**\*N900040100\***

Setup

Start

**\*NS1\***

Revision ID:

Item Name: 206 Saddle

Stop

**\*NS2\***

Start Date: 10/29/13 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 10/29/13 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

**\*130\***

QC

Quality Control

QC8- Inspect parts - second check

0.00

DAS  
44  
9-89

13/11/09

4 φ

140

**\*140\***

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

4 φ CF 13-11-11

Memo

0.00

150

**\*150\***

Powdercoat

Powder Coating

White Gloss(Ref 4.3-6.1) per QSI005 4.3-Alum

0.00

4 φ 13-11-12

DAS

34

9-89

Memo

0.00

START TIME: 11:40 OVEN TEMPERATURE:  
FINISH TIME: 12:10

NCR: Yes / No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: Date:

**QA Closed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS									
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>							
Part No. _____		NCR No. _____													
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector						
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear				General											
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio						<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	
														<input type="checkbox"/> Other	

**Work Order ID 108734**

October-29-13 9:54:14 AM

**\*108734\***

Page 3

**Item ID:** D2939-2

Accept

**\*N900040100\***

Setup

Start

**\*NS1\***

**Revision ID:**

Stop

**\*NS2\***

**Item Name:** 206 Saddle

**Start Date:** 10/29/13    **Start Qty:** 4.00

**\*4\***

**Cust Item ID:**

**Required Date:** 10/29/13    **Req'd Qty:** 4.00

**\*4\***

**Customer:**

**Reference:**

**Approvals:** Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

**Sequence ID/  
Work Center ID**

**Operation  
Description**

**Set Up/  
Run Hours**

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

QC3- Inspect Part Finish

0.00

27

9-89

**\*160\***

QC

Quality Control

13-11-12

4

170

Identify as per dwg & Stock Location: 814B8 .00

DAS  
26  
9-89

**\*170\***

Packaging

Packaging

Memo

0.00

13-11-13

180

QC21- Final Inspection - Work Order Release

0.00

**\*180\***

QC

Quality Control

Memo

0.00

MLJ 13-11-13

MLJ 13-11-13

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS								
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process													
Supplier													
Training													
Unapproved													
FAULT CATEGORY													
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other			

# Picklist Print

October-29-13 9:54:14 AM

Page 1

Work Order ID: 108734

Parent Item: D2939-2

Parent Item Name: 206 Saddle

Start Date: 10/29/13

Required Date: 10/29/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP: B 00.06.26 New DWG rev (mpp 2069)EC

IPP Rev:C As per Rev C 07-03-19 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-001 Saddle Billet		Manufactured	No			100	Each	32.0000	1	4	4	13-11-08	

Location	Loc Qty	Loc Code
MAT042	32	
108272	30	
97239	2	

108097

4

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS								
Part No. _____	Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>							
NCR No. _____	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>							
	Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>							
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process													
Supplier													
Training													
Unapproved													
FAULT CATEGORY													
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <hr/> <hr/> <hr/>		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <hr/> <hr/> <hr/>	

DART AEROSPACE LTD	Work Order:	108734
Description: 206 Saddle, Inboard, Right side	Part Number:	D2939-2
Inspection Dwg: D2939 Rev: C DSK: Rev:		Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

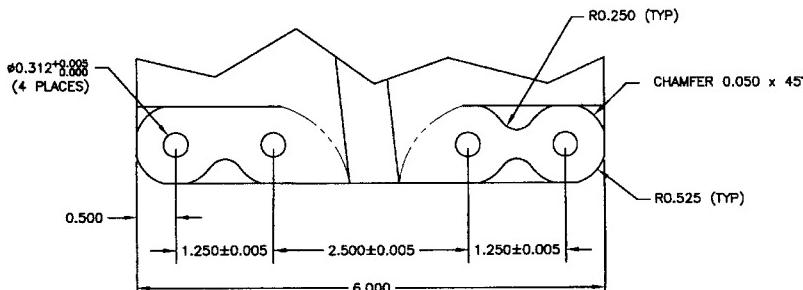
First Article  Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
A	0.100	0.140		.113	.112	.112	.112	
B	0.100	0.140		.115	.114	.173	.110	
C	0.100	0.140		.112	.124	.124	.123	
D	0.210	0.230		.220	.219	.220	.220	
E	1.245	1.255		1.248	1.248	1.248	1.248	
F	1.245	1.255		1.248	1.248	1.248	1.248	
G	2.495	2.505		2.498	2.499	2.499	2.499	
H	0.510	0.515		.512	.512	.512	.512	
I	1.572	1.582		1.576	1.576	1.576	1.576	
J	2.495	2.505		2.500	2.497	2.497	2.497	
K	0.257	0.262		.259	.259	.259	.259	
L	0.312	0.317		.314	.314	.314	.314	
M	0.235	0.240		.235	.236	.236	.236	
N	0.100	0.140		.115	.119	.120	.120	
O	0.540	0.560		.547	.548	.547	.547	
P	0.490	0.510		.497	.496	.497	.498	
Q	3.715	3.725		3.719	3.718	3.718	3.718	
R	2.720	2.760		2.740	2.740	2.740	2.740	
S	0.240	0.270		.250	.244	.249	.247	
T	0.100	0.180		.135	.135	.135	.135	
U	1.625	1.635		1.628	1.629	1.629	1.629	
V	1.362	1.372		1.367	1.366	1.366	1.366	
W	0.316	0.321		.316	.316	.316	.316	
X	1.250	1.270		1.260	1.265	1.260	1.260	
Y	1.565	1.585		1.5735	1.574	1.5734	1.572	
Z	0.178	0.198		.188	.188	.188	.188	
AA								
AB								
AC								
AD								

#### Accept/Reject

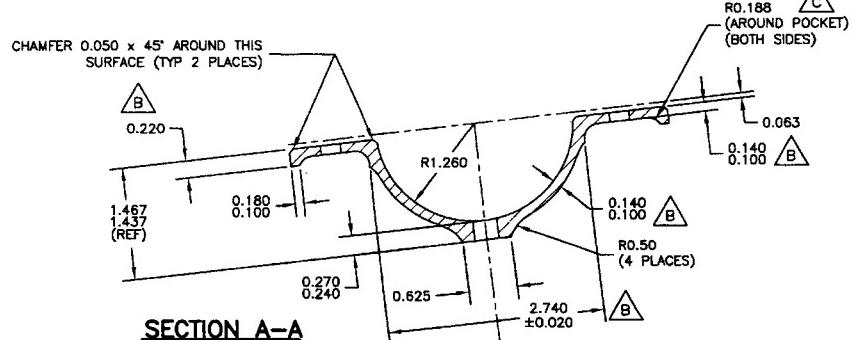
Measured by:	<i>John</i>	Date:	13-11-08
Audited by:	<i>44</i>	Date:	13/11/08
Prototype Approval:	<i>9-9</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.12.12	Re-format; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B	KJ/RF	
C	07.03.21	Revised per drawing revision C	KJ/JLM	
D	07.11.23	DT8695 A/B removed	KJ/EC/DD	<i>JK</i>

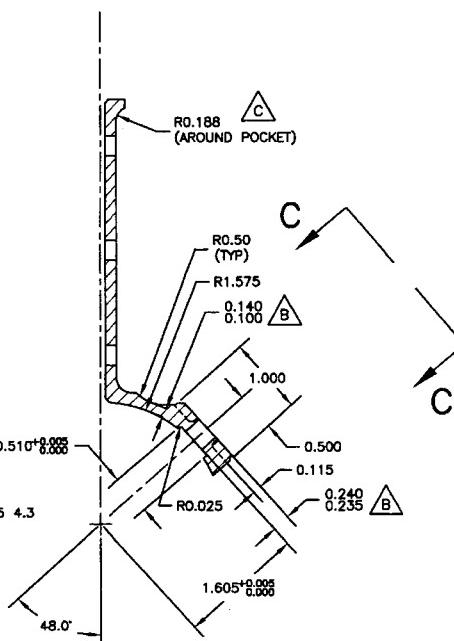


VIEW C-C

D2939-1 LH SADDLE (SHOWN)  
D2939-2 RH SADDLE (OPPOSITE)

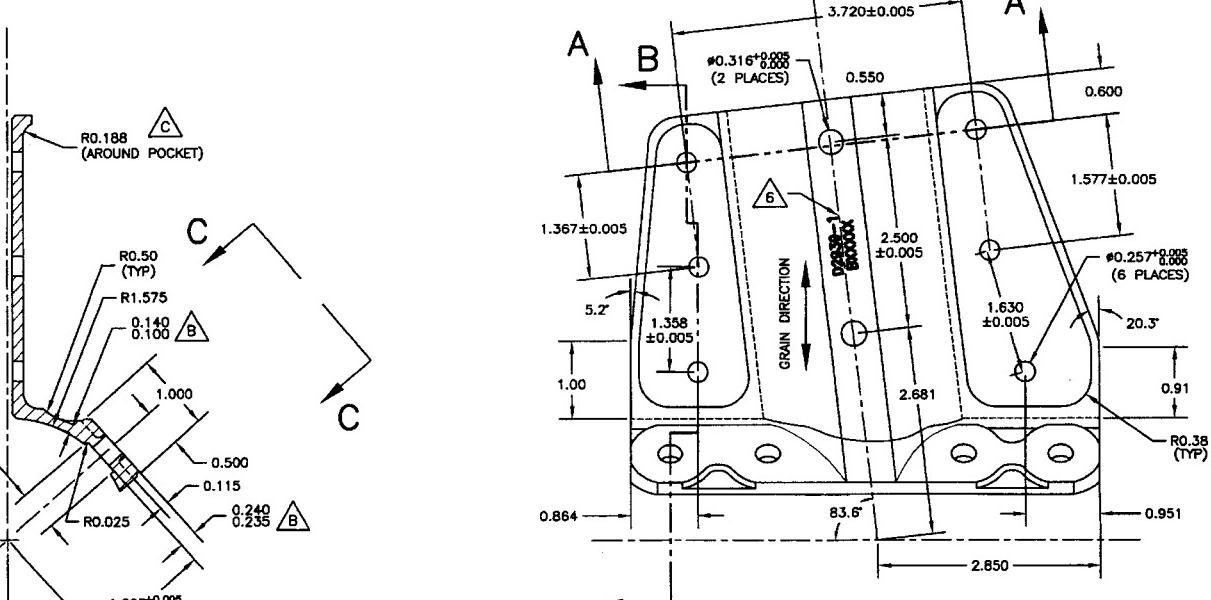


SECTION A-A



SECTION B-B

- NOTES:**
- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)  
(MAKE FROM D8101-001 SADDLE BILLET, 7075)
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
  - 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
  - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 5) ALL DIMENSIONS ARE INCHES
  - 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP



B

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE USA, INC.

DESIGN	DRAWN BY	DART AEROSPACE USA, INC. BELLEVUE, WA
CHECKED	APPROVED	DRAWING NO. D2939
PJ	DA	REV. C SHEET 1 OF 1
DATE	TITLE	SCALE 2:3
06.11.09	SADDLE INSIDE	

108734 M/C  
13-11-01

